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NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT

221 W. Pine St., Lodi, CA 95240

GENERAL MANAGER
Edward M. Steffani

LEGAL COUNSEL
Stewart C. Adams, Jr.

May 15, 2000

Cal Fed Bay Delta Progress
1416 9th Street, Suite 1155
Sacramento, CA 95814

Subject: CALFED Fish Screen Grant

I am writing as directed by North San Joaquin Water Conservation District (NSJWCD) Board action of 05/09/00.

NSJWCD has been diverting water from the Mokelumne River for many years for irrigation purposes, with the belief that the existing side-channel design has effectively prevented fish eggs and smolt from entering the districts pumps. Notwithstanding this belief, some contend that fish screens must be provided. Understandably, NSJWCD has resisted requests for fish screens because no scientific evidence for the need exists, and because the district has no financial ability to make the installations.

In order that the question of need may be resolved, NSJWCD hereby applies for a grant to complete a feasibility study for fish screens for each of two diversions located on side-channels from the Mokelumne River near Tretheway Road, Lockeford. NSJWCD makes this request with the hope that additional CALFED funds would be available, should the feasibility study show need for fish screens.

Should you have questions about this application, or about NSJWCD's inability to fund either a feasibility study, or construction, please do not hesitate to contact me.

Thank You,


Ed Steffani
General Manager
North San Joaquin Conservation District

ED/gd

Proposal # 2001- L-214 (Office Use Only)

PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: Mokelumne River Water Diversion Screening Feasibility Study
Applicant Name: North San Joaquin Water Conservation District
Contact Name: Mr. Ed Steffani
Mailing Address: 221 West Pine Street, Lodi CA, 95241
Telephone: 209-333-6706
Fax: 209-333-6710
Email: gdeason@lodi.gov

Amount of funding requested: \$ 85,500.00

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost _____ Federal cost _____

Cost share partners? _____ Yes _____ X No

Identify partners and amount contributed by each _____

Indicate the Topic for which you are applying (check only one box).

- | | |
|--|--|
| <input type="checkbox"/> Natural Flow Regimes | <input type="checkbox"/> Beyond the Riparian Corridor |
| <input type="checkbox"/> Nonnative Invasive Species | <input type="checkbox"/> Local Watershed Stewardship |
| <input type="checkbox"/> Channel Dynamics/Sediment Transport | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Flood Management | <input type="checkbox"/> Special Status Species Surveys and Studies |
| <input type="checkbox"/> Shallow Water Tidal/ Marsh Habitat | <input type="checkbox"/> Fishery Monitoring, Assessment and Research |
| <input type="checkbox"/> Contaminants | <input checked="" type="checkbox"/> Fish Screens |

What county or counties is the project located in? San Joaquin

What CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible East Side Delta Tributaries (11)

Indicate the type of applicant (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input checked="" type="checkbox"/> Local government/district | <input type="checkbox"/> Tribes |
| <input type="checkbox"/> University | <input type="checkbox"/> Private party |
| <input type="checkbox"/> Other: _____ | |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input type="checkbox"/> White Sturgeon | <input type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Waterfowl and Shorebirds | <input type="checkbox"/> American shad |
| <input type="checkbox"/> Migratory birds | |
| <input type="checkbox"/> Other listed T/E species: _____ | |

Indicate the type of project (check only one box):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Research/Monitoring | <input type="checkbox"/> Watershed Planning |
| <input type="checkbox"/> Pilot/Demo Project | <input type="checkbox"/> Education |
| <input type="checkbox"/> Full-scale Implementation | |

Is this a next-phase of an ongoing project?

Yes _____

No ☒ _____

Have you received funding from CALFED before?

Yes _____

No ☒ _____

If yes, list project title and CALFED number _____

Have you received funding from CVPIA before?

Yes _____

No ☒ _____If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):
_____**By signing below, the applicant declares the following:**

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Ed Steffani

Printed name of applicant

Signature of applicant

EXECUTIVE SUMMARY

Title of Project: Mokelumne River Water Diversion Fish Screen Feasibility Study
Amount Requested: \$85,500.00
Applicant: North San Joaquin Water Conservation District
Mr. Ed Steffani, General Manager
221 West Pine Street, Lodi, CA 95421
209-333-6706 (phone); 209-333-6710 (fax)
gdeason@lodi.gov

Project Description:

The North San Joaquin Water Conservation District (NSJWCD) is requesting funds to evaluate fish screen alternatives at one in-stream and two channel diversions located on the Mokelumne River near Lockeford. Screening of diversions on the Mokelumne River is listed as a priority project by the Anadromous Fish Restoration Program. The fish screen alternatives will be evaluated against criteria established by the California Department of Fish and Game (CDFG) and the National Marine Fisheries Service (NMFS). Eventual implementation in a later phase will result in reduced entrainment losses at these water diversions of juvenile salmonids, other special status species, and resident species.

Project Approach:

The NSJWCD, with assistance from Tetra Tech EM Inc., will assess the feasibility of various fish screening alternatives. NSJWCD will confer with the natural resources agencies regarding the selection of appropriate fish screens for evaluation and will utilize hydrologic modeling and criteria from natural resources agencies to identify the most appropriate fish screen alternatives for the diversions along the Mokelumne River. A hydrologic model will be developed to evaluate the alternatives as well as to assess the impacts and uncertainties of installing fish screens on the river and diversion characteristics.

Applicability to CALFED ERP Goals:

The Mokelumne River serves as migratory corridor for anadromous fish including fall-run Chinook salmon and steelhead, as well as other resident and migratory species. Fish entrainment is a significant stressor on anadromous fish populations in the Mokelumne River. Entrainment would be reduced by the screens and would help to restore self-sustaining fish runs in the river. In addition, the general evaluation approach developed in the feasibility study will address some of the uncertainty associated with impacts of fish screens on river dynamic processes.

Participants and Collaborators:

1. North San Joaquin Water Conservation District
2. Tetra Tech EM Inc.
3. Permitting agencies
4. Land owners
5. San Joaquin Resource Conservation District

MOKELUMNE RIVER WATER DIVERSION SCREENING FEASIBILITY STUDY

PROJECT DESCRIPTION

1. Statement of the Problem

Populations of anadromous fish on the Mokelumne River are affected by dams and water diversions by preventing or hindering fish migration. Losses of young fish to unscreened or inadequately screened water diversions have been identified as a major stressor contributing to the decline of priority species and habitats. Mortality at water diversions can occur through injury, impingement, entrainment, and increased vulnerability to predation. Therefore, to protect juvenile salmonids in the Mokelumne River, especially fall-run Chinook salmon and steelhead, the NSJWCD proposes to conduct a feasibility study to evaluate options for installing fish screens, if required, at one in-stream and two channel diversions of the Mokelumne River located near Lockeford, in San Joaquin County. Design, construction and installation of the fish screens, if needed, would be the next phase of this project.

Fish screens have proven effective in maintaining anadromous fish from entering diversions and bypassing dam inlets. However, the potential impacts of fish screens on channel migration, erosion, and fluvial hydrogeomorphology at the diversions in the Mokelumne River are unknown. For example, to protect the fish screens adjacent banks are commonly protected by riprap, thus impairing the ability of the channel to migrate and conflicting with the ERP goal of restoring dynamic river processes.

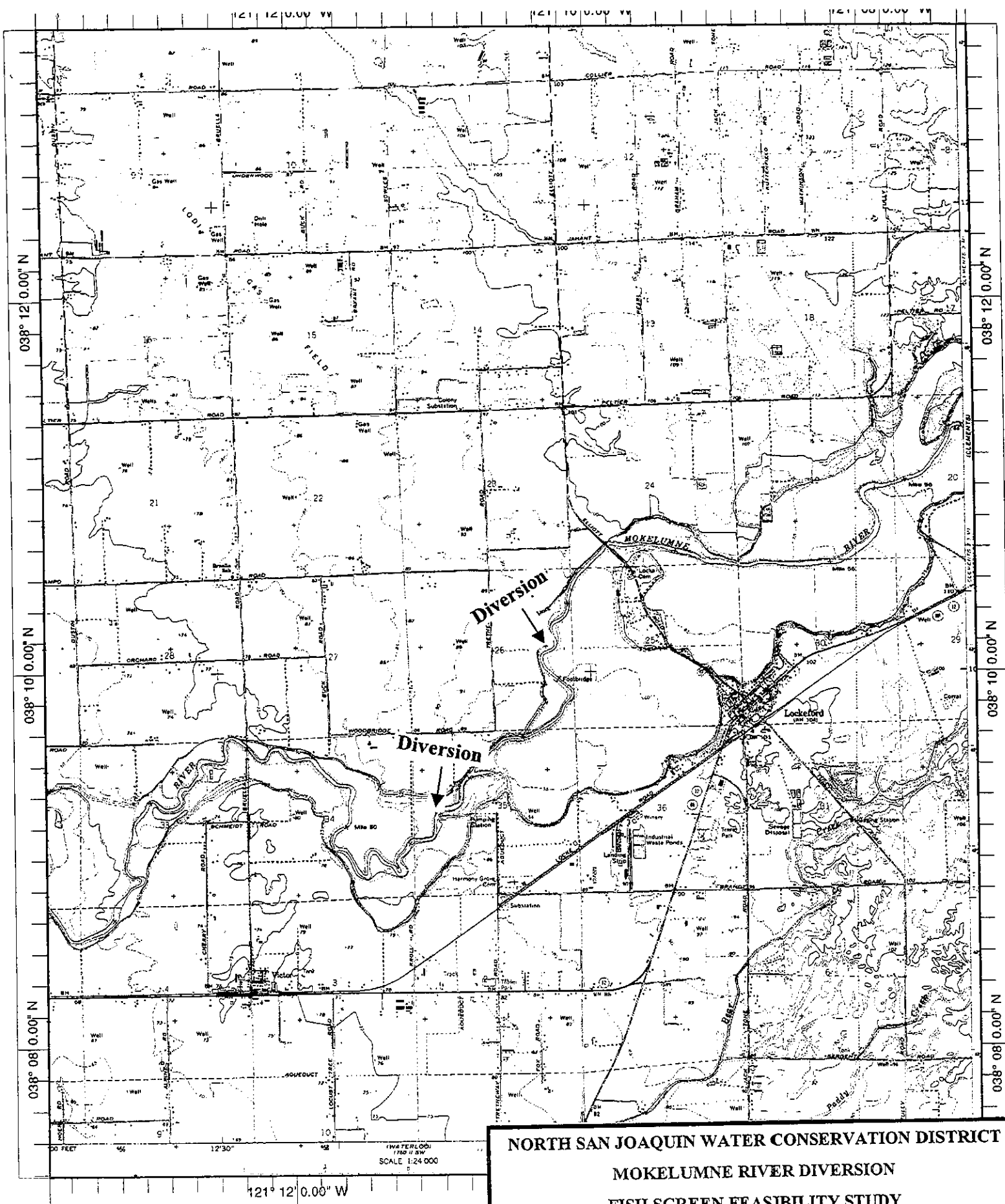
The primary goal of the proposed feasibility study focuses on developing fish screen alternatives for the Mokelumne River diversions. However, the general evaluation approach and hydrologic model can be used for other fish screen projects. The hydrologic model developed for the feasibility study can be used as a tool by other CALFED agencies to continue to study the flow impacts of fish screens on river characteristics and fish migration patterns.

2. Proposed Scope of Work

The project is located on the Mokelumne River between Lodi and Lockeford, in San Joaquin County. The locations of the subject diversions are shown on Figures 1 and 2.

NSJWCD will conduct a feasibility study to examine various structural and nonstructural options to mitigate fish entrainment in the diversions. The following tasks will be completed as part of the feasibility study:

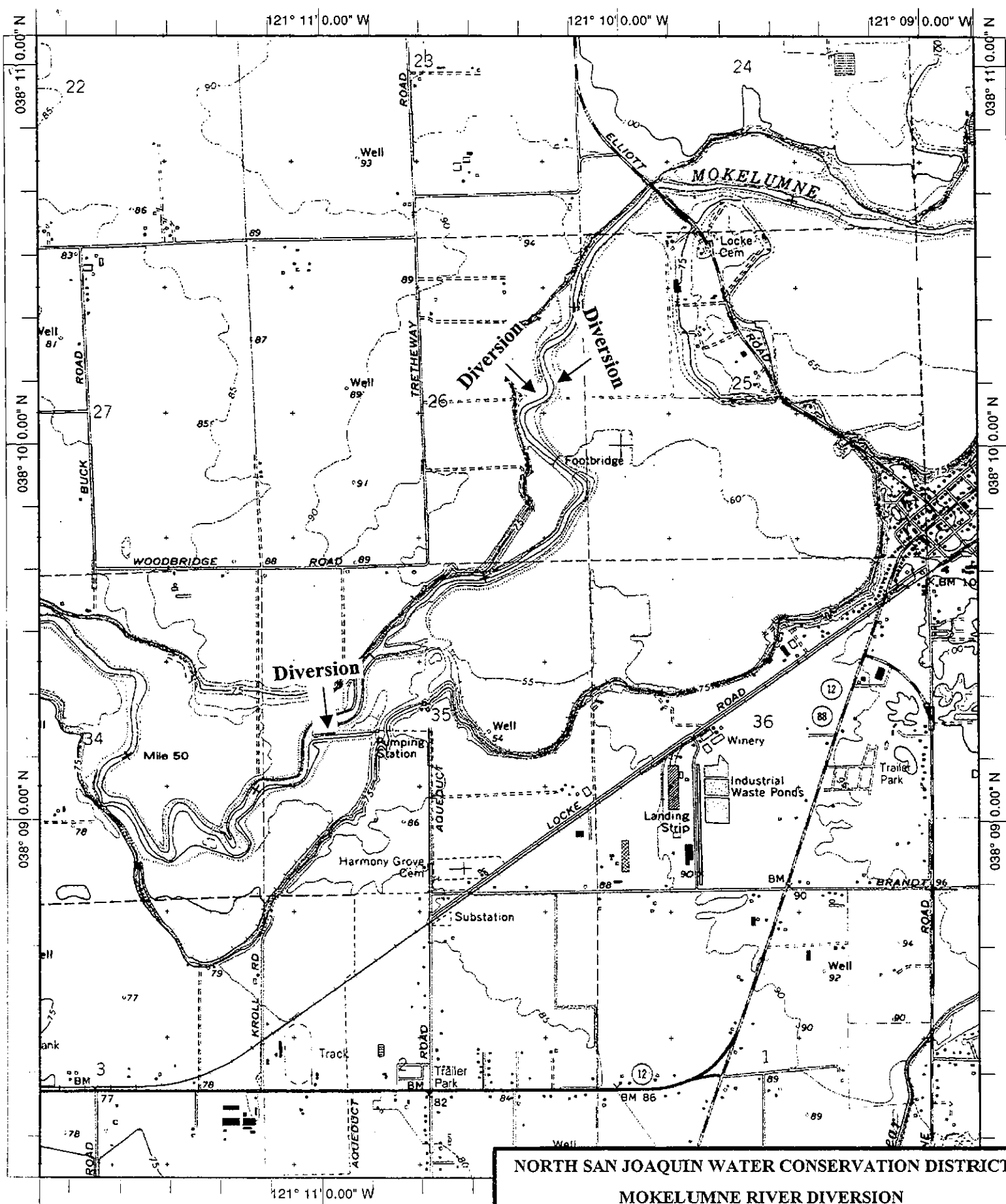
1. Conduct a survey of other projects that may impact the success of the anadromous fishery on the lower Mokelumne River, other fishery population and stressor studies, and the successes and failures of existing fish screens.



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT
MOKELUMNE RIVER DIVERSION
FISH SCREEN FEASIBILITY STUDY

FIGURE 1
SITE LOCATION MAP

Name: LOCKEFORD
 Date: 5/10/100
 Scale: 1 inch equals 4000 feet



NORTH SAN JOAQUIN WATER CONSERVATION DISTRICT

MOKEUMNE RIVER DIVERSION

FISH SCREEN FEASIBILITY STUDY

FIGURE 2

DIVERSION LOCATION(S)

Tetra Tech EM Inc.

<Default> - 2 Markers, Length = 1 mile, 2088 feet

Number 2 - 038° 09' 1

Name: LOCKEFORD

Date: 5/10/100

Scale: 1 inch equals 2000 feet

Copyright (C)

2. Complete a background review and survey of the hydraulic and hydrologic conditions relevant to the proposed fish screen locations along the Mokelumne River. Field activities will include a survey of the existing diversions and river hydrography and collection of hydrologic information needed for the hydrologic model. GIS coordinates will be established for each diversion in the field.
3. Identify fish screen alternatives appropriate for the physical conditions at the proposed locations. NSJWCD will confer closely with the natural resources agencies on the selection of fish screening options. Both structural and nonstructural options will be evaluated in the feasibility study. Examples of structural options include installing fish screens or in-gravel wells, wedge-wire or perforated plate positive-barrier fish screens or self-cleaning wedge-wire or in-river cylindrical screens for siphons and pumps. Examples of nonstructural options include consolidation or relocation of diversions as well as adjusting operations (i.e., timing of pumping) to minimize entrainment.
4. Develop and calibrate numerical hydrologic model. A hydrodynamic simulation model such as AquaDyn allows the complete description and analysis of hydrodynamic conditions (e.g., flow rates and water levels) of open channels such as rivers. Simulation will be used to predict impacts on water flow conditions resulting from the different fish screen alternatives identified in Step 3.
5. Evaluate the fish screen alternatives against evaluation criteria including:
 - CDFG Fish Screening Criteria and the NMFS and Southwest Region's Fish Screening Criteria for Anadromous Salmonids
 - Criteria developed under the CDFG Unscreened Diversion Program, CVPIA Anadromous Fish Screening Program, NRCS's Fish Screening Program
 - Alternatives will be evaluated for the potential to inhibit channel migration, control erosion, and impact fluvial hydrogeomorphology characteristics upstream and downstream of the proposed fish screen locations
 - Operation and maintenance considerations
 - Aesthetics
6. Quarterly project status reports and a final program report will be prepared for review by the CALFED contract manager, any appropriate public agency representative, and other interested parties. Each quarterly status report will include a brief description of progress, technical problems identified and resolved, anticipated progress, and financial summaries. The final program report will incorporate all task findings and provide the recommended fish screen alternative.

APPLICABILITY TO CALFED ERP GOALS AND IMPLEMENTATION PLAN AND CVPIA PRIORITIES

Entrainment is the most significant stressor associated with unscreened diversions. From the source tributaries to the Delta, water diversions entrain millions of fish and other aquatic organisms from their source water bodies. Entrained fishes generally do not survive and are permanently removed from the source water.

The primary ecological and biological benefits from this feasibility study are substantial. The study is directed specifically at priority species (primarily chinook salmon and steelhead trout) and primary stressors (alteration of flows, channel form changes, population management, and human disturbance) on the lower Mokelumne River. Secondary but important benefits will also occur with this study through environmental education and increased public support for fish screening with the demonstration of working screens. The study is directed at primary stressors and enhances ecosystem function and processes.

As the largest of the eastside Delta tributaries, the lower Mokelumne River provides the greatest opportunity to restore and enhance salmon and steelhead populations. This study's goal would be a primary step in effectively meeting the ERP vision for the Mokelumne River which is focused on improving habitat for fall-run chinook salmon and steelhead and reducing fish passage problems at diversions.

This feasibility study to implement fish screens at diversions along the Mokelumne River primarily works towards meeting ERP goals 1 and 2.

ERP Goal 1: Achieve recovery of at-risk native species dependent on the Delta as the first step toward establishing self-sustaining populations of these species.

The feasibility study is the first step in addressing the immediate needs of the species for protection through the selection and eventual construction of the fish screens. The feasibility study will also provide a tool through the hydrologic model to gain additional information about how the species respond to ecosystem functions and processes. This tool can be used by other agencies.

ERP Goal 2: Rehabilitate natural processes in the Bay-Delta system to support natural aquatic and associated terrestrial biotic communities.

The feasibility study will develop a general approach to evaluate both structural and nonstructural fish screens including alternatives with minimal human intervention. The hydrologic model developed under the feasibility study can be used as a tool to answer scientific uncertainties which could influence the ability to achieve ERP Goal 2 including questions about the ability to simulate natural flow regimes, develop a better understanding of channel dynamics and how they affect habitat restoration and at-risk species.

Benefits from the feasibility study to implement effective fish screens at diversions along the Mokelumne River are summarized below:

- CALFED priority species: increase survival of screenable fish lifestages and reduce entrainment of food web organisms
- CALFED priority habitats: improve instream aquatic habitat by reducing source of fish mortality
- CALFED ERP: accelerate and continue funding for screening
- USFWS AFRP: screen all diversions
- Lower Mokelumne River Project Joint Settlement Agreement: Identify, design, and install screens on diversion facilities to prevent unintended fish losses.

QUALIFICATIONS

NSJWCD will be responsible for administrative management of all aspects of the project. NSJWCD is a special district under the California Water Code and is a qualified applicant for state and federal funding. **Mr. Ed Steffani** will be the project manager. Mr. Steffani is the general manager for the NSJWCD.

NSJWCD will be assisted by Tetra Tech EM Inc., a water resources management firm in Ranch Cordova. Tetra Tech will complete the feasibility study, design, environmental documents, and reporting for the project. Tetra Tech's project manager will be **Mr. Mike Stephens**, a Certified Engineering Geologist. Mr. Stephens has over 13 years experience in the water resources field, including work on sanitary surveys, watershed planning, and hydrogeology. Mr. Stephens will be assisted by the following individuals at Tetra Tech:

Dr. Ru-Ming Li Ph.D., P.E. Dr. Li has more than 33 years of experience in water resources planning, design, and construction supervision and is recognized as a leader in the fields of hydrology, hydraulics, sediment transport, water quality, and watershed management. Much of this work has been performed for the U.S. Army Corps of Engineers including feasibility studies, engineering design, public involvement, interagency coordination, regulatory compliance, and data management using GIS for water conservation and supply, habitat conservation, ecosystem restoration, stream bank and shoreline erosion protection, and floodplain management.

Dr. Li prepared a physical model of a fish screen on the Sunnyside Canal near Yakima on the Yakima River. The proposed structure included a trash rack, 17 bay fish screen structures, and a flow-control structure with river return conduit for conveyance of migratory fishes. The physical model was designed, constructed, and operated to evaluate the hydraulics of various components of the system and the velocity field in the approach canal, in the vicinity of the screen bays and downstream of the screen structure.

Jim McCall, Design Engineer. Mr. McCall is a senior engineer specializing in hydraulics and mechanical systems design for sewage treatment plants, pipelines, open channel storm drainage, fish hatcheries and aquariums and other aquaculture facilities. With over 25 years experience, his responsibilities have included project lead, hydraulics, civil and site design, construction inspection, and operation and maintenance manuals. During the past 20 years, he has participated as project manager or project leader in more than 130 fisheries-related

projects. He also worked on developing a concept for floating barge salmon hatcheries to be used in Alaska and in a salmon introduction program in Chile.

Mr. McCall's design work has included aquaculture and fish hatchery sites, sewage treatment plants, aquarium projects, and various other types of facilities. Before joining our firm in 1972, Jim worked with the U.S. Geological Survey for nine years, measuring river flows, determining water content in watersheds, and performing flood analyses and analyzing data for publication.

Mr. Peter Boucher, Environmental Scientist. Mr. Boucher has 16 years of experience in water and sediment quality assessments, watershed management, nonpoint source control, ecological assessment, lake restoration, environmental impact assessment and mitigation, and remedial investigations and feasibility studies of hazardous waste sites. He also completed wetland and other environmental permit applications for projects involving dredging, commercial developments, and wastewater and stormwater collection, treatment and disposal. He designed and directed a variety of field investigations for remedial investigations and studies of wetland, lake, river, and marine environments.

Project Experience

Sacramento National Wildlife Refuge, Willows, California; U.S. Fish and Wildlife Service. KCM, a wholly-owned subsidiary of Tetra Tech Inc., provided project management and design engineering for planning and design of an intake and fish screen to supply fish-free water to waterfowl ponds at the refuge. The screen system consists of perforated plate "screen" panels with a paddle-wheel driven brush cleaning system. The screens are operated seasonally to flood and maintain water levels in the waterfowl ponds and have a maximum capacity of 5 mgd.

Coleman National Fish Hatchery, Anderson, California; U.S. Fish and Wildlife Service. KCM provided project management and design engineering for planning, design and construction of a renovation to an existing intake structure to exclude juvenile salmon and trout from the No. 3 intake at the fish hatchery. The renovated intake utilizes a series of nearly horizontal, profile wire screen panels, and an automated air burst scour system to remove debris which accumulates on the screen panels. The intake capacity is 20,000 gpm (28.8 mgd). Other project elements include a low diversion weir across Battle Creek and a pool and weir fish ladder to pass migratory and resident fish over the diversion weir.

Little White Salmon National Fish Hatchery, Portland, Oregon; U.S. Fish and Wildlife Service. KCM provided project management and design engineering for construction of two fish screening projects to supply water for operation of the national fish hatchery. The Little White Salmon River intake utilizes two end-delivery rotary drum screens to exclude juvenile salmon and trout for the 50 mgd primary hatchery water supply. The second screen facility filters water from the primary intake as well as supplemental well water, spring water, and surface water from a small creek. This facility uses an inclined profile wire screen and a rotary microstrainer to remove sediment and debris to a 60 micron size from the water supply to the egg incubation building at the hatchery.

**Cost Estimate for
Mokelumne River Fish Screens
Feasability Study**

	Hrs	Cost
Project Survey	80	6,000.00
Background Review	80	6,000.00
Identify Alternatives	200	15,000.00
Conference with natural resource agencies	40	3,000.00
Hydrologic Model	200	15,000.00
Evaluate Alternatives	200	15,000.00
Subtotal		\$60,000.00
Reporting		
Quarterly Reports (4)	80	6,000.00
Final Report	200	15,000.00
Subtotal		\$21,000.00
TOTAL	1080	\$81,000.00
Add:		
Copies		500.00
Telephone		500.00
Computer		1,000.00
Travel		500.00
Supplies		500.00
Graphics/CADD		500.00
Equipment Rental		1,000.00
Subtotal		\$4,500.00
GRAND TOTAL		\$85,500.00
Labor		81,000.00
ODCs		4,500.00
GRAND TOTAL		\$85,500.00

LOCAL INVOLVEMENT

Local support comes from the San Joaquin County Resource Conservation District and the Mokelumne River Technical Advisory Committee. The project has also been approved by the relevant land owners.

NSJWCD will coordinate all activities with the CDFG, NMFS, U.S. Fish and Wildlife Service, and the U.S. Bureau of Reclamation.

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

The applicant will comply with State and Federal standard terms as contained in Attachments D and E of the request for proposals. Appropriate forms from the Attachments are included in this proposal.

THRESHOLD REQUIREMENTS

Threshold requirements are attached.

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

YES

X
NO

- 2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.**

Lead Agency

- 3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.**

Proposal involves no construction related activities

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

YES

 X
NO

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

LOCAL

Conditional use permit _____
 Variance _____
 Subdivision Map Act approval _____
 Grading permit _____
 General plan amendment _____
 Specific plan approval _____
 Rezone _____
 Williamson Act Contract _____
 cancellation _____
 Other _____
 (please specify) _____
 None required _____

STATE

CESA Compliance _____ (CDFG)
 Streambed alteration permit _____ (CDFG)
 CWA § 401 certification _____ (RWQCB)
 Coastal development permit _____ (Coastal Commission/BCDC)
 Reclamation Board approval _____
 Notification _____ (DPC, BCDC)
 Other _____
 (please specify) _____
 None required _____

FEDERAL

ESA Consultation _____ (USFWS)
 Rivers & Harbors Act permit _____ (ACOE)
 CWA § 404 permit _____ (ACOE)
 Other _____
 (please specify) _____
 None required X

DPC = Delta Protection Commission
 CWA = Clean Water Act
 CESA = California Endangered Species Act
 USFWS = U.S. Fish and Wildlife Service
 ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act
 CDFG = California Department of Fish and Game
 RWQCB = Regional Water Quality Control Board
 BCDC = Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breaching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

YES

X
NO

- 2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).**

Research and planning only.

- 3. If YES to # 1, what is the proposed land use change or restriction under the proposal?**

- 4. If YES to # 1, is the land currently under a Williamson Act contract?**

YES

NO

- 5. If YES to # 1, answer the following:**

Current land use

Current zoning

Current general plan designation

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

YES

NO

DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

YES

NO

9. If YES to #8, what are

the number of employees/acre

the total number of employees

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?

YES

 X
NO

11. What entity/organization will hold the interest? _____

12. If YES to # 10, answer the following:

Total number of acres to be acquired under proposal

Number of acres to be acquired in fee

Number of acres to be subject to conservation easement

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property

provide operations and maintenance services

conduct monitoring

14. For land acquisitions (fee title or easements), will existing water rights also be acquired?

YES

NO

15. Does the applicant propose any modifications to the water right or change in the delivery of the water?

YES

 X
NO

16. If YES to # 15, describe _____



San Joaquin County Resource Conservation District

May 12, 2000

Mr. Ed Steffani
General Manager
North San Joaquin Water Conservation District
221 West Pine Street
Lodi, CA 95241

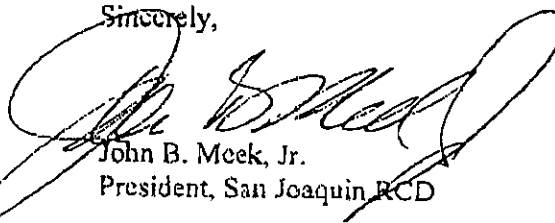
Dear Mr. Steffani:

Thank you for the opportunity to review your proposal to develop water diversion screening on the lower Mokelumne River. The San Joaquin Resource Conservation District (SJRCDD) is supportive of the District's efforts to ensure the survivability of anadromous fisheries on the lower Mokelumne River. The SJRCDD's local watershed stewardship plan for the lower Mokelumne River encourages cooperative actions such as your proposal to achieve and maintain these objectives over time.

Together with the Water Diversion Screening Project and the SJRCDD's Watershed Stewardship Plan, which is already in progress, the funding and implementation of your proposal will result in substantial progress in achieving the CALFED Vision for the Mokelumne River.

I offer the SJRCDD's cooperation in developing the proposed plan, and encourage other stakeholders in the lower Mokelumne River to support your efforts.

Sincerely,



John B. Meek, Jr.
President, San Joaquin RCD

Agreement No.: _____

Exhibit: _____

ADDITIONAL STANDARD CLAUSES

Recycled Materials. Contractor hereby certifies under penalty of perjury that 0 (enter value or "0") percent of the materials, goods and supplies offered or products used in the performance of this Agreement meet or exceed the minimum percentage of recycled material as defined in Sections 12161 and 12200 of the Public Contract Code.

Severability. If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

Governing Law. This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

Y2K Language. The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are "Year 2000 compliant." For purposes of this Agreement, a good or service is Year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable, with full ability to accurately and unambiguously process, display, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

Child Support Compliance Act. For any agreement in excess of \$100,000, the Contractor acknowledges in accordance therewith, that:

1. The Contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and
2. The Contractor, to the best of its knowledge, is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

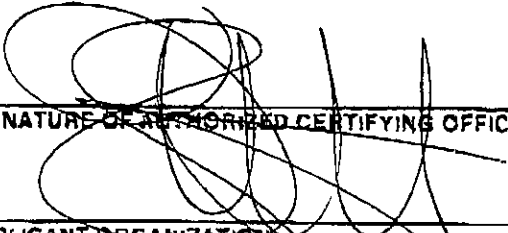
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

- 9 Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
- 10 Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 11 Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523), and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
- 12 Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
- 13 Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
- 14 Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15 Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
- 16 Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- 17 Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1986 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- 18 Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE General Manager
APPLICANT ORGANIZATION North San Joaquin Water Conservation District	DATE SUBMITTED 5/15/00

STATE OF CALIFORNIA

NONDISCRIMINATION COMPLIANCE STATEMENT

STD 19 (REV. 3-95)

North San Joaquin Water Conservation District
COMPANY NAME

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), medical condition (cancer), age (over 40), marital status, denial of family care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

Edward M. Steffani

DATE EXECUTED

5/15/00

EXECUTED IN THE COUNTY OF

SAN JOAQUIN

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

General Manager

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

North San Joaquin Water Conservation District

May-15-00 11:03am From-TTI TETRA TECH EM INC

+8169520307

T-328 P.03/10 F-108

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0042

1. TYPE OF SUBMISSION:		2. DATE SUBMITTED	Applicant Identifier
Application <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction	Preapplication <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction	3. DATE RECEIVED BY STATE	State Application Identifier
		4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier
5. APPLICANT INFORMATION			
Legal Name: North San Joaquin Water Conserv. District		Organizational Unit: Local Water District	
Address (give city, county, State, and zip code): Lodi, San Joaquin County, CA 95241		Name and telephone number of person to be contacted on matters involving this application (give area code): Ed Steffoni 209-333-6706	
6. EMPLOYER IDENTIFICATION NUMBER (EIN) []-[]-[]-[]-[]-[]-[]-[] NA		7. TYPE OF APPLICANT: (enter appropriate letter in box)	
8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es) [] [] A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify):		A. State H. Independent School Dist. B. County I. State Controlled Institution of Higher Learning C. Municipal J. Private University D. Township K. Indian Tribe E. Interstate L. Individual F. Intermunicipal M. Profit Organization G. Special District N. Other (Specify)	
		9. NAME OF FEDERAL AGENCY: CAL-FED	
10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: []-[]-[]-[] TITLE: NA		11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Mokelumne River Water Inflow Screening	
12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): San Joaquin County, CA			
13. PROPOSED PROJECT Fish Screen FS		14. CONGRESSIONAL DISTRICTS OF: Pomona	
Start Date 10/1/00	Ending Date 10/1/01	a. Applicant North San Joaquin Water Conservation District	
15. ESTIMATED FUNDING:		b. Project Fish Screen Feasibility Study	
a. Federal	\$ 85,500	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?	
b. Applicant	\$	a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON.	
c. State	\$	DATE	
d. Local	\$	b. No. <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
e. Other	\$	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?	
f. Program Income	\$	<input type="checkbox"/> Yes If "Yes," attach an explanation. <input checked="" type="checkbox"/> No	
g. TOTAL	\$ 85,500		
18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN ONLY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.			
a. Type Name of Authorized Representative Ed Steffoni		b. Title General Manager	c. Telephone Number 209-333-6706
d. Signature of Authorized Representative		e. Date Signed 5/15/00	

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